A NEW SPECIES OF SPHAERIUM (S. NOTATUM)

BY V. STERKI

SPHAERIUM NOTATUM, new species.

Somewhat elongate, subequipartite, medium inflated; beaks slightly or barely anterior, moderately projecting, rounded and slightly mamillar; dorsal margin rather short, moderately curved, bounded by slightly marked angles, ventral moderately and regularly curved; anterior and posterior slopes slightly marked, anterior end well rounded, posterior somewhat angular; surface dull to dullish, microscopically rugulose, with the striae rather fine, crowded, sharp, irregular to subregular; color of the adult corneous to drab or grayish, mostly with a narrow marginal lighter zone, of the young straw to light yellowish; shell rather thin, opaque or subtranslucent; hinge moderately curved, of the same formation as in *striatinum*, etc., plate quite narrow, cardinals small; long. 15, alt. 11.5, diam. 8.3 mm.

Habitat: rivers and creeks, occasionally ponds.

Distribution: rather wide, mostly west of the Mississippi River but not seen from the Rocky Mts.; so far as now known, most frequent in Kansas, in Dickinson, Saline, Ottawa, Marion, Morris, Butler Counties, and some others, to Missouri, Illinois, Wisconsin, Iowa, Nebraska and North Dakota (in the last three or four, from one or a few places), also to Arkansas, Oklahoma and southwestern Texas, in the last, recent and fossil. The distribution shows some marked gaps; but, being over areas mostly unexplored, they will probably be bridged.

This Sphaerium had been known for many years and regarded as probably a distinct species; then the fine materials collected at many places in Kansas, by Dr. H. P. Mera, and numerous accessions from other places, brought confirmation and a better understanding of the relations,

and variation. There are now over a hundred entries in the collection of the Carnegie Museum, representing thousands of specimens looked over.—*Types:* No. 9469 t (Sphaeriidae collection) from the Camp Creek, Dickinson Co., Kansas.

It is of the same group with *S. striatinum* Lamarck, and apparently takes its place westward, but their areas are somewhat overlapping, e. g. in Illinois and Wisconsin. The mussels are larger, more equipartite with the dorsal margin somewhat shorter somewhat less and more evenly inflate. The surface is more markedly rugulose, more dull, and decidedly less variable as to striation; (about the color, see below).

Variation: The species is rather variable in several respects. Typical and near-typical forms are found over most of the area; even they show differences, of size: from 14 to 17 mm. long; shape: some old specimens have the posterior end rounded—a feature shown by most species of the group. The striae are from very fine and crowded to somewhat coarser and regular, especially over the beaks; color: the grayish—or drab—corneous shade is prevalent in the adult and, by the way, practically unknown with *S. striatinum.* The straw color to light yellow of the young is more persistent in some forms, and in one lot, apparently not distinct, even the mature ones have not changed. A large number of specimens from a drainage ditch at Urbana, Ill., collected by Dr. H. J. Van Cleave, are somewhat different, slightly smaller, with the beaks more prominent, and the color just dark corneous, are probably a local form, due to environment.

S. n. neoshense: somewhat smaller, less inflate, slighter, with outlines more rounded, surface less rugulose, with striae fine and slight, color lighter, corneous to yellowish; Neosho River, Kansas, several places, also collected by Dr. Mera; e. g. Nos. 9490, 9554, appears to be a regional subspecies.

S. notatum? gibbosum: dorsal margin, and hinge, somewhat more curved, posterior slope more marked and the

end more angular, ventral margin less curved; mussel more inflate, above, but the discs towards the ventral are somewhat flattened; surface less rugulose and somewhat glossy color light to dark corneous.—Greenwood Park pond at Des Moines, Ia., collected by Mr. T. Van Hyning, in 1906, associated with *notatum,* and a few other Sphaeria. There were many hundred specimens of the two, and these are markedly different from each other, but with intermediate forms. It appears possible, or even probable, that they are distinct species, may be carried into the pond by streams, and there hybridized. I could not obtain any facts proving or disproving this. But: some specimens of *gibbosum,* typical, have been seen from other places, partly distant, not accompanied by *notatum;* and: with all other *notatum* from scores of places, there were no *gibbosum.*

Beside these, there are some other Sphaeria more or less resembling *notatum,* under doubt. Additional materials may prove whether they be forms of this, or of distinct species.

SOME MISPLACED PLEUROCERIDS

BY CALVIN GOODRICH

Several species of the Pleuroceridae have been permitted to remain for many years in genera to which they do not belong. In the notes that follow I have called attention to more or less casual corrections of such mistakes, and have undertaken on my own part the correction of others. So far as I have been able to do so I have examined types.

Io rota Reeve, 1860. Thought by Tryon to belong to *Angitrema.* Pilsbry has recognized this as *Pachymelania aurita* (O. F. Müller). See "Aquatic Mollusks of the Belgian Congo", p. 267.